

Item #9
October 6, 2010
Energy Commission Business Meeting

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC.

**Grant Agreement
for**

Product Launch of a Combination Charger/Inverter

Summary

Quantum Fuel Systems Technologies Worldwide, Inc. (Quantum) will re-tool one of its facilities in Lake Forest, CA, in South Orange County to manufacture and test a new combination inverter/charger for PHEV, and EV applications. Once operational, the facility will be able to produce 36,000 units each year.

Quantum (co-founder of Fisker Automotive) developed the Q-Drive, a hybrid powertrain that will be used in the Fisker Karma and Sunset, a pair of highly anticipated plug-in hybrid luxury sedans. While Quantum anticipates supplying the Q-Drive to Fisker for up to 15,500 vehicles each year, it is developing a second generation Q-Drive designed around a new combination inverter/charger that will be more economical and targeted at a wider audience. In order to produce the new Q-Drive, Quantum requests funding to upgrade an existing facility with testing equipment, a pilot production line, and ultimately, a high volume production line.

The Energy Commission is providing \$1,371,679 in Alternative and Renewable Fuel and Vehicle Transportation Program funds and the project team will provide match funding of \$1,760,000.

Benefits

By funding Quantum's project, the Energy Commission is investing in California's nascent clean-tech industry and encouraging the development of a network of California-based vehicle technology and component manufacturers that should prove to be well-positioned for growth. Thirty to forty jobs will be created directly by the project, and more will follow if Quantum's second generation Q-Drive is successful.

Each Q-Drive powertrain sold, if it replaces a traditional internal combustion propulsion system, is capable of reducing GHG emissions by 48% and gasoline use by 270 gallons per year.

The design and manufacturing processes employed by Quantum are ISO certified and follow the guidelines of Advanced Product Quality Planning (APQP), with a zero waste philosophy and Six Sigma manufacturing techniques incorporated into the design.

Participants

Quantum is a California-based supplier of clean propulsion systems, energy storage solutions, and components for the global automotive industry, with experience designing, developing, and manufacturing over 500,000 specialty vehicles, 20,000 alternative fuel vehicle systems, 2,000 hydrogen systems, and hydrogen hybrid electric military vehicles and PHEVs.